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Next Generation UConn Testimony to the Finance Committee

by Masha Gordina, March 4, 2013

My name is Masha Gordina, I am an Associate Professor of Mathematics at UConn, where I have been since 2003. Our department is responsible for a large number of students majoring in mathematics, statistics, and engineering, and we are home to an extremely successful actuarial program. Many STEM majors choose math as their minor or a second major. This gives them not only critical analytic skills they will need in their future careers, but also expands their choices after graduation.

That's what I heard from my former undergraduate student, Ashley Kocsis. She is finishing UConn with two majors, in Civil Engineering and Math, and she was awarded a \$10,000 scholarship from The Moles, an association of professionals engaged in heavy construction:

http://www.themoles.info/,

http://news.engr.uconn.edu/kocsis-moldvay-win-the-moles-scholarships.php.

She told me on many occasions that she has an advantage over many of her fellow engineering students because of her strong math background.

With the new support we will be able to prepare such students better, and help them benefit from interdisciplinary research connections that have just started to emerge at UConn:

- computational aspects in neuroscience that need sophisticated math tools such as compressed sensing;
- computer vision;
- numerical methods for modelling in Marine Sciences;
- computational biology at the UCHC

to name a few examples, in addition to more established fields such as

- actuarial science and
- financial mathematics.

This would allow us to prepare students better at both undergraduate and graduate levels, and certainly goes beyond the common view of math as a service science. Mathematics is an integral part of STEM, and UConn has a great potential in mathematics that we can develop much further.

I expect us to succeed because we have seen positive changes in the last years: the number and amount of scholarly grants have increased, particularly among recent hires, our research has been supported by NSF, NSA and other funding agencies, we ran a successful REU (Research for Undergraduates) program:

http://mathreu.uconn.edu/

which drew in very strong students both from inside and outside of UConn, and our visibility has increased, allowing us to attract new faculty, and more and better students.

Masha Gordina
Associate Professor
Department of Mathematics
University of Connecticut
Storrs, CT 06269-3009
http://www.math.uconn.edu/~gordina
E-mail address: maria.gordina@uconn.edu